

THAT CLAIMED IS:

1. A power generator system comprising:
a power generator;

an exciter for excitation of said power generator,
the exciter including a diode wheel, the diode wheel
5 having a rotating support structure, a plurality of diodes
mounted to the structure, and a plurality of a diode
support and rupture containment devices each positioned
adjacent a respective one of the plurality of diodes to
support the diode and contain the diode within the
10 confines thereof in the event the diode ruptures.

2. A power generation system as defined in Claim 1,
wherein each of the diode support and rupture containment
devices includes a pair of spaced-apart containment
members having the diode positioned therebetween, each of
5 the containment members being formed of an insulating
material.

3. A power generation system as defined in Claim 2,
wherein the diode wheel includes a plurality of metal-
electric connection regions each having one of the diodes
connected thereto, wherein each of the plurality of diodes
5 includes a casing formed of an insulating material, and
wherein at least one of the pair of containment members is
positioned adjacent the metal-electric connection region
having the diode connected thereto and extends to the
casing of the diode.

4. A power generation system as defined in Claim 3,
wherein each of the pair of containment members has a
substantially annular shape to thereby define an
insulative disc, and wherein each of the insulative discs
5 are pivotally connected to the diode wheel for ease of
access to the diode.

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5. An exciter for a power generation system, the exciter comprising:

- a rotating support structure;
- a diode mounted to the structure; and

5 a diode support and rupture containment device positioned to support the diode and contain the diode within the confines thereof in the event the diode ruptures, the diode support and rupture containment device including a pair of spaced-apart containment members
10 arranged to have a diode positioned therebetween, the diode including an insulative casing, each of the pair of containment members positioned to extend from a metal-electric connection region when the diode is connected to a conducting member to the insulative casing of the diode.

6. An exciter as defined in Claim 5, wherein each of the pair of containment members of the diode support and rupture device is formed of an insulating material.

7. An exciter as defined in Claim 6, wherein each of the pair of containment members has a substantially annular shape to thereby define an insulative disc.

8. A diode support and rupture containment device for a diode of a power generation system, the device comprising:

5 a pair of spaced-apart containment members arranged to have a diode positioned therebetween, the diode including an insulative casing, each of the pair of containment members positioned to extend from a metal-electric connection region when the diode is connected to a conducting member to the insulative casing of the diode.

9. A diode support and rupture containment device as defined in Claim 8, wherein each of the pair of containment members is formed of an insulating material.

10. A diode support and rupture containment device as defined in Claim 9, wherein each of the pair of containment members has a substantially annular shape to thereby define an insulative disc.

11. A method of containing material ejected from a diode of a power generation system, the method comprising the steps of:

5 pivotally connecting a rupture containment device to a diode mounting region and adjacent a diode of the power generation system, the rupture containment device including at least one rupture containment member formed of an insulating material.

12. A method as defined in Claim 11, wherein the step of pivotally connecting includes positioning at least one end of the at least one rupture containment member adjacent one end of the diode and positioning another end of the at least one rupture containment member adjacent
5 another end of the diode.

13. A method as defined in Claim 12, wherein the at least one rupture containment member includes a pair of spaced-apart rupture containment members, each rupture containment member having a substantially annular shape so
5 that the rupture containment member defines an insulative disc.